

Claims

We claim:

1. A multilayer structure comprising:

a coextruded multilayer heat sealant structure comprising a first layer comprising a thermoplastic polymeric material, a second layer comprising low density polyethylene disposed adjacent to and coextruded with the first layer, and a third layer comprising a single site catalyzed polyethylene for use as a heat sealant layer wherein the third layer is disposed adjacent to the second layer and further wherein the third layer is coextruded with the first and second layers.

2. The multilayer structure of claim 1 wherein the coextruded multilayer heat sealant structure is laminated to a substrate.

3. The multilayer structure of claim 2 wherein the substrate comprises a metallized layer wherein the first layer of the coextruded multilayer heat sealant structure is laminated to the metallized layer.

4. The multilayer structure of claim 1 wherein the first layer of said coextruded multilayer heat sealant structure comprises ethylene acrylic acid copolymer.

5. The multilayer structure of claim 1 wherein the second layer comprises a blend of low density polyethylene and high density polyethylene.

6. The multilayer structure of claim 1 wherein the third layer comprises metallocene-based single site catalyzed polyethylene.

7. The multilayer structure of claim 1 wherein the third layer comprises a blend of the single site catalyzed polyethylene and low density polyethylene.

8. The multilayer structure of claim 2 wherein the coextruded multilayer heat sealant structure is coextrusion coated to the second structure.
9. The multilayer structure of claim 1 wherein the heat sealant structure is made by blown coextrusion.
- 5 10. The multilayer structure of claim 1 wherein the single site catalyzed polyethylene has a density of about 0.912 g/cc and a melt index of about 12 g/10 min at 190°C.
11. The multilayer structure of claim 1 wherein the single site catalyzed polyethylene has a density of about 0.910 g/cc and a melt index of about 15 g/10 min. at 190° C.
12. A package for a product comprising: ✓
- 10 a first multilayer structure comprising a coextruded multilayer heat sealant structure comprising a first layer comprising a thermoplastic polymeric material, a second layer comprising low density polyethylene disposed adjacent to and coextruded with the first layer, and a third layer comprising a single site catalyzed polyethylene for use as a heat sealant layer wherein said third layer is disposed adjacent to the second layer and further wherein the third
- 15 layer is coextruded with the first and second layers; and
- a second multilayer structure heat sealed to the first multilayer structure to form the package with a space therein for the product.
13. The package of claim 12 wherein the coextruded multilayer heat sealant structure is laminated to a substrate.
- 20 14. The package of claim 13 wherein the substrate comprises a metallized layer wherein the first layer is laminated to the metallized layer.
15. The package of claim 12 wherein the first layer of the coextruded multilayer heat sealant structure comprises ethylene acrylic acid copolymer.

16. The package of claim 12 wherein the second layer comprises a blend of low density polyethylene and high density polyethylene.
17. The package of claim 12 wherein the third layer comprises metallocene-based single site catalyzed polyethylene.
- 5 18. The package of claim 12 wherein the third layer comprises a blend of the single site catalyzed polyethylene and low density polyethylene.
19. The package of claim 13 wherein the coextruded multilayer heat sealant structure is coextrusion coated to the substrate.
20. The package of claim 12 wherein the coextruded multilayer heat sealant structure is made
10 by blown coextrusion.
21. The package of claim 12 wherein the second multilayer structure is identical to the first multilayer structure.
22. The package of claim 12 wherein the single site catalyzed polyethylene has a density of about 0.912 g/cc and a melt index of about 12 g/10 min. at 190°C.
- 15 23. The package of claim 12 wherein the single site catalyzed polyethylene has a density of 0.910 g/cc and a melt index of about 15 g/10 min. at 190°C.
24. A method of making a multilayer structure comprising the steps of:
coextruding a multilayer heat sealant structure comprising a first layer comprising a thermoplastic polymeric material, a second layer comprising low density polyethylene wherein
20 said second layer is disposed adjacent to the first layer, and a third layer comprising a single site catalyzed polyethylene wherein the third layer is disposed adjacent to the second layer; and
laminating said first layer of said multilayer sealant structure to a substrate.
25. The method of claim 24 wherein the substrate comprises a metallized layer.

26. The method of claim 24 wherein the first layer comprises ethylene acrylic acid copolymer.

27. The method of claim 24 wherein the second layer comprises a blend of the low density polyethylene and a high density polyethylene.

5 28. The method of claim 24 wherein the third layer comprises a blend of the single site catalyzed polyethylene and low density polyethylene.

29. The method of claim 24 wherein the multilayer heat sealant layer is made via blown coextrusion.

30. The method of claim 24 further comprising coextrusion coating the multilayer heat
10 sealant structure to the substrate.

31. The method of claim 24 wherein the single site catalyzed polyethylene has a density of about 0.912 g/cc and a melt index of about 12 g/10 min. at 190°C.

32. The method of claim 24 wherein the single site catalyzed polyethylene has a density of about 0.910 g/cc and a melt index of about 15 g/10 min. at 190°C.

15 33. The method of claim 24 wherein said multilayer heat sealant structure comprises a first coextruded substructure comprising the first layer and a first part of the second layer laminated to a second coextruded substructure comprising a second part of the second layer and the third layer, wherein the first and second parts of the second layer are laminated together to form a single layer.

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